United States Environmental Protection Agency

U.S. Environmental Protection Agency (EPA)
Commerce Street Plume

EPA Community Update **Spring 2010**

This fact sheet summarizes the current status of the remedial investigations at the Commerce Street Plume Superfund site located in Williston, Vermont. The primary concern at this site is a plume of groundwater contamination that extends from Commerce Street to South Brownell Road.

The area is served by a public water supply so there are no immediate threats to human health from consumption of contaminated groundwater. Commerce Street Plume became a federal Superfund site when it was placed on the National Priorities List (NPL) in April 2005.

You are Invited to Meet with EPA for a Community Availability Session to Learn About the Current Status of the Remedial Investigations and Upcoming Field Work at the Commerce Street Plume Superfund Site in Williston, Vermont

Wednesday, May 5, 2010
7:00 p.m.

Thursday, May 6, 2010
8:00 a.m.-10:00 a.m.

Williston Police Station
Training Room
7928 Williston Rd.
Williston, VT 05495

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www.epa.gov/ne/superfund/sites/commercestreet

Search for Potentially Responsible Parties

Although the Superfund law gives EPA the authority to use public funds to clean up a contaminated site, it is EPA's preference to have the party or parties responsible for the contamination conduct the investigations and any subsequent remediation under Agency oversight. At a site such as Commerce Street where the groundwater plume has come to be located on multiple parcels over a long period of time beginning decades ago, identifying viable potentially responsible parties (PRPs) can be a challenge. To date, only one viable PRP has been located. In January 2010, Mitec Telecom, Inc., of Lachine, Quebec, agreed to a settlement of $120,000 to cover a portion of EPA's costs for investigations to further delineate the nature and extent of contamination. EPA continues to look for additional PRPs.

Previous Groundwater Investigations

Numerous groundwater investigations had been conducted in the area of the Alling Industrial Park on Commerce Street prior to EPA's involvement with the site. The most recent of these occurred between March 1999 and January 2000, under an agreement between the State of Vermont and Mitec Telecom, Inc. This study confirmed that the primary concern at the site is a plume of volatile organic compounds (VOCs) that appear to originate from a source at the northern end of Commerce Street and fans out to the south. The study also showed that the more contaminated portion of the plume trends to the southeast in the direction of an unnamed stream that eventually flows into Muddy Brook, but that a portion of the plume trends southwest under Kirby Lane and South Brownell Road. The highest VOC concentrations were found in the unconsolidated sand and silt layers of the overburden aquifer just above an underlying layer of clay and dense glacial till, about 30 to 40 feet below ground surface. No contaminants were found in the bedrock aquifer.

Concentrations of trichloroethylene (TCE), the most pervasive chemical compound detected in the groundwater, were found in excess of 20,000 parts per billion (ppb). For the sake of comparison, the federal drinking water standard for TCE is 5 ppb. The area is served by municipal water, so there is no current risk to human health from consumption of contaminated groundwater. However, there is a potential human-health risk from vapor coming off the groundwater plume and making its way through the soil, where, much like radon, it can migrate up from the soil and into buildings. Previous studies conducted by the Vermont Department of Environmental Conservation suggest that with the exception of one residence on South Brownell Road (which has been addressed), vapor intrusion may not be a wide-spread concern.

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EPA's Remedial Investigation: Phase 1

EPA began a remedial investigation of its own in August 2008. The goals of this investigation were to characterize the current nature and extent of groundwater contamination at the site and identify potential data gaps. One of the first activities undertaken was an inventory of the more than 180 groundwater monitoring wells that were identified during the 1999-2000 investigation as being intact. Of those, only 68 were potentially useable as the rest had either been decommissioned, destroyed, filled in, paved over or simply could not be located. Groundwater samples were collected and analyzed for a variety of chemical compounds. As with the previous studies, the only chemicals detected at levels that exceed federal and state standards are TCE, tetrachloroethylene (PCE), and the BTEX compounds (benzene, toluene, ethylbenzene, xylene).

In comparing the data sets from the 1999-2000 investigation to that from 2008-2009, several conclusions can be drawn. First, although the arial extent of the plume remains roughly the same, concentrations in the hottest portions of the plume have decreased significantly, many by an order of magnitude (e.g., from over 20,000 ppb TCE down to 1700 ppb TCE). Second, although the concentrations are decreasing across most of the area, the fact that they are still elevated even after ten years, suggests that there is an ongoing source of contamination. Based on the distribution of contaminants, our current thinking is that solvents migrated downward as a dense non-aqueous phase liquid through the sand and silts of the upper overburden aquifer and have come to rest on the less permeable, confining layer of clay and glacial till.

EPA's Remedial Investigation: Phase 2

EPA expects to conduct a second and more comprehensive study of the Commerce Street Plume Superfund site over the 2010 field season, beginning in late April. The activities are expected to include a geophysical survey, installing new groundwater monitoring wells, and surface water sampling of the unnamed brook. EPA will be contacting property owners individually this spring, seeking permission to access private property. Your cooperation in assisting with EPA's remedial investigation of the site will be greatly appreciated.